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Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	964	(717/124).ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/05/20 08:05
L2	0	L1 and (assign\$2 same static same dyanmic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/05/20 08:39
L3	1	L1 and (static same dyanmic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/05/20 08:39
S1	2	(assign\$2 same static same dyanmic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/05/20 08:05
S2	0	Method of identifying similarities in code segments	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/05/19 08:23
S3	0	identifying similarities in code segments	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/05/19 08:23
S4	318	identifying similarities	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/05/19 08:23

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S5	0	identifying similarities in code	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/05/19 08:23
S6	2	("5699507").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/05/19 09:06
S7	2	("5913023").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/05/19 09:06

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EL EMAM ET AL.: THE OPTIMAL CLASS SIZE FOR OBJECT-ORIENTED SOFTWARE.

497. 10. The actual **analysis** used **static** path count. However, Hatton ...www.latece.uqam.ca/publications/Citel2002-01.pdf - [Similar pages](#)**[PDF] Interclass **Testing** of Object Oriented Software**

Department of Computer Science, NUI Maynooth, Ireland.

Aine Mitchell's Homepage



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Introduction

I'm Aine, and I'm a PhD student here in NUI Maynooth. I completed my primary degree in 2000 in Biochemistry in Trinity College Dublin. I then came to Maynooth to undertake a Masters in Computer Science which I completed in 2002. I am a member of the [Principles of Programming \(POP\)](#) research group at NUI Maynooth.

Research Interests

- **Doctor of Philosophy (commenced 2002)**

PhD Thesis: "Definition and evaluation of run-time object-oriented software metrics"

- **Master of Computer Science (2002)**

MCompSci. Thesis: "Dynamic coupling and cohesion metrics for Java programs":

Abstract: Software metrics provide methods of determining software quality through quantifying different aspects of software complexity. Given the importance of object-oriented design techniques a large number of object-oriented metrics for statically evaluating a design have been proposed. Coupling and Cohesion metrics are two such measures. They are said to evaluate the external and internal complexity of a design respectively. A large body of research has gone into investigating how these complexity measures characterise the external quality attributes of a design, for example its maintainability, reusability or error-proneness. Despite the extensive research in this area no measures for quantifying dynamic coupling and cohesion have been proposed. The quality of a software product will be influenced by its operational environment as well as the source code complexity, therefore it was believed that measures that accesses runtime quality may aid in the analysis of software quality. The study described here proposes new dynamic class level metrics for coupling and cohesion. It characterises the ability of these metrics to evaluate external quality attributes of a design. These dynamic metrics are then applied to assess the quality of a number of Java programs applications from the Java Grande Forum Benchmark Suite. A static analysis of the programs is also performed using static coupling and cohesion metrics defined by Chidamber and Kemerer. Results from this study indicate that valuable information on software quality may be obtainable from a runtime evaluation. They further indicate that a co-relation may exist between static and dynamic metrics. Hence there is a need for further empirical studies to validate these metrics and explore the dependency of design quality on each. [more](#)

Journal Publications

2005

- Mitchell, A. and Power, J.F., "[A Study of the Influence of Coverage on the Relationship Between Static and Dynamic Coupling Metrics](#)", *Science of Computer Programming*, [Elsevier](#), Accepted for Publication, 2005.

Conference Publications and Reports

2005

- Mitchell, A. and Power, J.F., "Using Object-Level Run-time Metrics to Study Coupling Between Objects", Accepted as part of the 2005 ACM Symposium on Applied Computing (ACM SAC'05), Santa Fe, New Mexico, March 13-17, 2005, pg 1456-1463.
- Brown, S., Mitchell, A. and Power, J.F., "A Coverage Analysis of Java Benchmark Suites", 2005 IASTED International Conference on Software Engineering (IASTED'05), Innsbruck, Austria, February 15-17, 2005, pg 144-150.

2004

- Mitchell, A. and Power, J.F., "Run-time Cohesion Metrics: An Empirical Investigation", 2004 International Conference on Software Engineering Research and Practice (SERP'04), Las Vegas, Nevada, June 21-24, 2004, pg 532-537.
- Mitchell, A. and Power, J.F., "An Empirical Investigation into the Dimensions of Run-time Coupling in Java Programs", Principles and Practice of Programming in Java (PPPJ'04), Las Vegas, Nevada, June 16-18, 2004, pg 9-14.
- Mitchell, A. and Power, J.F., "An approach to quantifying the run-time behaviour of Java GUI applications", Winter International Symposium on Information and Communication Technologies (WISICT 2004), Cancun, Mexico, Jan. 5-8, 2004, pg 1-6.

2003

- Mitchell, A. and Power, J.F., "Towards a definition of run-time object-oriented metrics", 7th ECOOP Workshop on Quantitative Approaches in Object-Oriented Software Engineering (QAOOSE'2003), Darmstadt University of Technology, Germany, July 21-25, 2003.
- Mitchell, A. and Power, J.F., "Run-time Coupling Metrics for the Analysis of Java Programs - preliminary results from the SPEC and Grande suites", Technical Report NUIM-CS-TR2003-07, Dept. of Computer Science, NUI Maynooth, Ireland, April 2003.
- Mitchell, A. and Power, J.F., "Run-time Cohesion Metrics for the Analysis of Java Programs - preliminary results from the SPEC and Grande suites", Technical Report NUIM-CS-TR2003-08, Dept. of Computer Science, NUI Maynooth, Ireland, April 2003.

Run-time Analysis Tools

Class-Level Analysis:

- Tracer.jar
- ReadMe

Object-Level Analysis:

- DynamicInstrumenter.jar
- ReadMe

Lecturing

In the academic year 2004/2005:

- Compiler Design (Third Year CSSE/CS/M.Comp.Sci Year 1/Fourth Year CSSE Optional) (SE301/CS310)

Demonstrating

In the academic year 2004/2005:

- Compilers (Third Year CSSE/CS/M.Comp.Sci Year 1/Fourth Year CSSE Optional) (SE301/CS310)
- Introduction to Computer Science and Software Engineering (First Year CSSE) (SE104)
- Operating Systems (Second Year B.Sc./M.Comp.Sci Year 1) (CS240)
- Computer Networks (Second Year CSSE/Third Year B.Sc./M.Comp.Sci Year 1) (SE201/CS320)
- Software Engineering/Software Process (Third Year B.Sc./M.Comp.Sci Year 1/Third Year CSSE) (CS335/SE311)

In the academic year 2003/2004:

- Computer Networks (Second Year CSSE/Third Year B.Sc./M.Comp.Sci Year 1) (SE201/CS320)
- Operating Systems (Second Year B.Sc./M.Comp.Sci Year 1) (CS240)
- Software Engineering/Software Process (Third Year B.Sc./M.Comp.Sci Year 1/Third Year CSSE) (CS335/SE311)

In the academic year 2002/2003:

- Operating Systems (Second Year B.Sc./M.Comp.Sci Year 1) (CS240)
- Computer Networks (Third Year B.Sc./M.Comp.Sci Year 1) (CS320)

In the academic year 2001/2002:

- Programming Languages and Compilers (Third Year B.Sc./M.Comp.Sci Year 1/Third Year CSSE) (CS310/SE310)
- Principles of Computer Programming (CS100)

Other Interests

- I enjoy travelling and have spent time travelling in Europe, America and Canada.
- I am a sports enthusiast and love the outdoors. In my spare time I play tennis and I also enjoy rock climbing
- I am an avid music fan and I play both the piano and the guitar.

Links

PhD Related Links

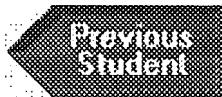
- Kaffe's Java Virtual Machine: The Kaffe home page
- Sun's Java Virtual Machine: Java Virtual Machine Specification
- Java Virtual Machine Debug Interface: JVMDI Reference

- Java Virtual Machine Profiler Interface: [JVMPI Reference](#)

Funding



This work is funded by the Embark initiative, operated by the Irish Research Council for Science, Engineering and Technology ([IRCSET](#)).



URL: <http://www.cs.may.ie/~ainem/>

Revised: 10thMay 2004

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